

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number
WO 2004/088787 A3

(51) International Patent Classification⁷: **H01Q 1/38**

(21) International Application Number:
PCT/IL2004/000301

(22) International Filing Date: 1 April 2004 (01.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
155221 3 April 2003 (03.04.2003) IL

(71) Applicant (for all designated States except US): **WAVEXTEND LTD [IL/IL]**; 1 Leshem St., Kiryat Gat, 82000 (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GAZIT, Mordechai** [IL/IL]; 43/7 Even Shmuel St., Jerusalem, 97234 (IL). **WASSER, Shay** [IL/IL]; 15 Katzenelson St., Tel Aviv, 64366 (IL). **BLAUNSHTEIN, Nathan** [IL/IL]; 17/30 Alfassi St., Beer Sheva, 64751 (IL).

(74) Agent: **DR EYAL BRESSLER TD**; POB 45220 Har Hotzvim, 8 Hamarpe St., Jerusalem, 91450 (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

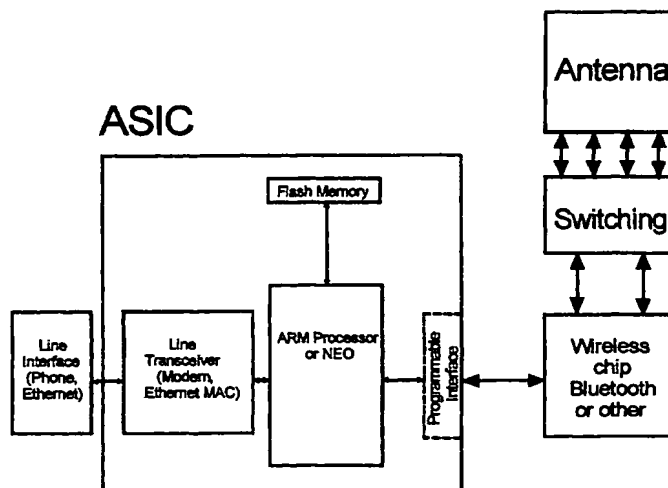
Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
10 March 2005

[Continued on next page]

(54) Title: PHASED ARRAY ANTENNA FOR INDOOR APPLICATION



(57) Abstract: A novel phased array antenna assembly is hereto presented. This antenna is adapted for reducing severe radiation hazards to the human body, and is useful for transmitting and receiving signals while taking into account the indoor electromagnetic field strength. The antenna comprising a micro-strip small-size antenna; a switching device, having a communicating means with said antenna to select between receiving or transmitting modes, further having a selecting means for phase shift and the receiving/transmitting frequencies; a controller adapted to receive inputs from said switching device comprising; a coordinating means, adapted to interconnect said switching device with a algorithm-based software; and a memory queue. This antenna assembly is cost effective in the manner it is adapted for an indoor mass-utilization consisting of low cost materials and components, and further wherein said assembly radiates a limited electromagnetic field in a minimal measure required for communication.

WO 2004/088787 A3



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.